

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-3. (canceled)

4. (currently amended) The ~~oligomeric compound~~ composition of claim [[102]] 34 wherein each of the 2'-substituent groups of ~~said other of said first and said second types of nucleosides~~ each Q or each Z is -F, -O-CH₂CH₂-O-CH₃, ~~-OC₁-C₁₂ alkyl~~, ~~-O-C₁-C₁₂ alkyl~~, -O-CH₂-CH₂-CH₂-NH₂, -O-(CH₂)₂-O-N(R₁)₂, -O-CH₂C(=O)-N(R₁)₂, -O-(CH₂)₂-O-(CH₂)₂-N(R₁)₂, -O-CH₂-CH₂-CH₂-NHR₁, -N₃, -O-CH₂-CH=CH₂, -NHCOR₁, -NH₂, -NHR₁, -N(R₁)₂, -SH, -SR₁, -N(H)OH, -N(H)OR₁, -N(R₁)OH, -N(R₁)OR₁ or -O-CH₂-N(H)-C(=NR₁)[N(R₁)₂]; and

wherein each R₁ is, independently, H, a protecting group or substituted or unsubstituted C₁-C₁₂ alkyl, C₂-C₁₂ alkenyl, or C₂-C₁₂ alkynyl wherein the substituent groups are selected from halogen, hydroxyl, amino, azido, cyano, haloalkyl, alkenyl, alkoxy, thioalkoxy, haloalkoxy or aryl.

5. (currently amended) The ~~oligomeric compound~~ composition of claim [[102]] 34 wherein each of the 2'-substituent groups of ~~said other of said first and said second types of nucleosides~~ each Q or each Z is -F, -O-CH₃, -O-CH₂CH₂-O-CH₃, -O-CH₂-CH=CH₂, N₃, NH₂, NHOH, -O-(CH₂)₂-O-N(R₁)₂, -O-CH₂C(O)-N(R₁)₂, -O-CH₂-CH₂-CH₂-NH₂, -O-(CH₂)₂-O-(CH₂)₂-N(R₁)₂ or -O-CH₂-N(H)-C(=NR₁)[N(R₁)₂]; and

wherein each R₁ is, independently, H, a protecting group or substituted or unsubstituted C₁-C₁₂ alkyl, C₂-C₁₂ alkenyl, or C₂-C₁₂ alkynyl wherein the substituent groups are selected from halogen, hydroxyl, amino, azido, cyano, haloalkyl, alkenyl, alkoxy, thioalkoxy, haloalkoxy or aryl.

6. (currently amended) The ~~oligomeric compound~~ composition of claim [[102]] 34 wherein each of the 2'-substituent groups of ~~said other of said first and said second types of nucleosides~~ each Q or each Z is -F, -O-CH₂CH₂-O-CH₃, -O-CH₃, -O-CH₂-CH=CH₂ or -O-CH₂-CH-CH₂-NH(R_j) where R_j is H or C₁-C₁₀ alkyl.

7. (currently amended) The ~~oligomeric compound~~ composition of claim ~~[[102]]~~ 34 wherein each of the 2'-substituent groups of ~~said other of said first and said second types of nucleosides~~ each Q or each Z is -F, -O-CH₃ or -O-CH₂CH₂-O-CH₃.

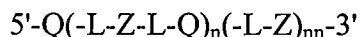
8-33. (canceled)

34. (currently amended) A composition comprising a first ~~oligomeric compound~~ and a second chemically synthesized oligomeric compound, compounds, wherein:

at least a portion of said first oligomeric compound is capable of hybridizing with at least a portion of said second oligomeric compound;

at least a portion of said first oligomeric compound is complementary to and capable of hybridizing to a selected nucleic acid target; and

~~wherein at least one of said first and second oligomeric compounds is an oligomeric compound of claim 102.~~ comprises a contiguous sequence of linked nucleosides wherein the sequence defines an alternating motif having the formula:



wherein:

each L is an internucleoside linking group;

each Q or each Z is, independently, a nucleoside having a 2'-substituent group that is other than H or OH;

the other of each Q or each Z is a β -D-deoxyribonucleoside;

n is from about 8 to about 14 and nn is 0 or 1; and

each of said oligomeric compounds is from about 18 to about 30 linked nucleosides in length.

35-37. (canceled)

37. (currently amended) The composition of claim 34 wherein ~~at least~~ only one of said first and said second oligomeric compounds ~~comprise only nucleosides of said first type and said second type and wherein said nucleosides of said first and said second types are~~

~~alternating throughout the entire sequence of said oligomeric compound.~~ comprises said alternating motif.

38. (currently amended) The composition of claim 37 wherein both of said first and said second oligomeric compounds independently ~~comprise only nucleosides of said first type and said second type and wherein said nucleosides of said first and said second types are alternating throughout the entire sequence of both of said oligomeric compounds.~~ said alternating motif.

39-45. (canceled)

46. (currently amended) The oligomeric compound of claim ~~[[102]]~~ 34 wherein each of the 2'-substituent groups of ~~said other of said first type of nucleosides and said second type of nucleosides~~ each Q or each Z is -F or -O-CH₃.

47-48 (canceled)

49. (currently amended) The composition of claim 34 wherein ~~said first type of nucleosides are~~ each Z is a 2'-H nucleosides. β -D-deoxyribonucleoside.

50. (currently amended) The composition of claim 34 wherein ~~said second type of nucleosides are~~ each Q is a 2'-fluoro nucleosides. nucleoside.

51. (currently amended) The composition of claim 34 wherein ~~said second type of nucleosides are~~ each Q is a 2'-O-CH₃ nucleosides. nucleoside.

52. (canceled)

53. (original) The composition of claim 34 wherein said first oligomeric compound further comprises a 5'-phosphate group.

54. (original) The composition of claim 34 wherein said second oligomeric compound further comprises a 5'-phosphate group.
55. (original) The composition of claim 34 wherein each of said first and said second oligomeric compounds independently, comprise a 5'-phosphate group.
56. (original) The composition of claim 34 wherein said first oligomeric compound comprises a 3'-terminal OH group.
57. (original) The composition of claim 34 wherein the nucleosides of each of said first and said second oligomeric compounds are linked by phosphodiester internucleoside linking groups.
58. (original) The composition of claim 34 wherein the nucleosides of each of said first and said second oligomeric compounds are linked by phosphorothioate internucleoside linking groups.
59. (original) The composition of claim 34 wherein the nucleosides of one said first and said second oligomeric compound are linked by phosphorothioate internucleoside linking groups and the nucleosides of the other of said first and said second oligomeric compound are linked by phosphodiester internucleoside linking groups.
60. (original) The composition of claim 34 wherein the nucleosides of said first oligomeric compound are linked by phosphorothioate internucleoside linking groups and the nucleosides of said second oligomeric compound are linked by phosphodiester internucleoside linking groups.
61. (original) The composition of claim 34 wherein each of the nucleosides of said first and said second oligomeric compound are independently linked by phosphorothioate or phosphodiester internucleoside linking groups.

62. (original) The composition of claim 34 wherein each of the nucleosides of said first and said second oligomeric compound are independently linked by an internucleoside linking group selected from the group consisting of phosphodiester, phosphorothioate, chiral phosphorothioate, phosphorodithioate, phosphotriester, aminoalkylphosphotriester, methyl phosphonate, alkyl phosphonate, 5'-alkylene phosphonate, chiral phosphonate, phosphinate, phosphoramidate, 3'-amino phosphoramidate, aminoalkylphosphoramidate, thionophosphoramidate, thionoalkylphosphonate, thionoalkylphosphotriester, selenophosphate and boranophosphate.

63. (currently amended) The composition of claim 34 wherein each of said first and said second oligomeric compounds comprise ~~only said first and said second type of nucleosides and wherein said first and said second type of nucleosides are alternating in both of said first and said second oligomeric compounds.~~ said alternating motif.

64. (canceled)

65. (currently amended) The composition of claim 63 wherein ~~said first type of nucleosides comprise~~ the 2'-substituent group of each Q is 2'-F or 2'-O-CH₃ groups.

66-71. (canceled)

72. (original) The composition of claim 34 further comprising at least one conjugate group.

73. (canceled)

74. (original) The composition of claim 34 wherein at least one of said first and said second oligomeric compounds further comprises at least one terminal cap moiety attached at the 3'-end, the 5'-end or both the 3'-end and the 5'-end.

75. (original) The composition of claim 74 wherein said terminal cap moiety is an inverted deoxy abasic moiety.

76. (original) The composition of claim 74 wherein one of said first and second oligomeric compounds is a sense strand and wherein said sense strand comprises a terminal cap moiety at one or both of the 3'-terminal and the 5'-terminal ends.

77. (original) The composition of claim 76 wherein said terminal cap moiety is an inverted deoxy abasic moiety.

78. (original) The composition of claim 34 wherein said first and said second oligomeric compounds are a complementary pair of siRNA oligonucleotides.

79-93. (canceled)

94. (previously presented) The composition of claim 34 wherein each of said first and second oligomeric compounds has from about 21 to about 24 nucleosides .

95. (original) The composition of claim 34 wherein said first oligomeric compound is an antisense oligonucleotide.

96. (original) The composition of claim 34 wherein said second oligomeric compound is a sense oligonucleotide.

97-99. (canceled)

100. (original) A method of inhibiting gene expression comprising contacting one or more cells, a tissue or an animal with a composition of claim 34.

101-103. (canceled)

DOCKET NO.: ISIS-5325

PATENT

Application No.: 10/701,007

Office Action mailed: October 19, 2006

104. (new) The composition of claim 34 further comprising one or more overhangs.